

METHODS OF AND APPARATUS FOR SEPARATING AND DETECTING
NUCLEIC ACID

ABSTRACT OF THE DISCLOSURE

A thin gel for separating and detecting a target molecule, (e.g., an analyte).and
methods of use thereof is described. The gel can be optionally reinforced to facilitate
removal from an electrophoretic apparatus, wherein the gel matrix comprises
immobilized (e.g., covalently bound) capture probes capable of specifically hybridizing
5 with, or binding to, the analyte to be detected. The gel is thin and very short assay times
can be achieved facilitating rapid detection of analytes. An assay apparatus is suitable
for use with an electrophoretic assay system for the detection of, or separation and
detection of an analyte in a biological sample is also described.